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REPLACEMENT PAGES

CLAIMS

What is claimed is:

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8. A touchpad keyboard for entering data into a hand-held and portable electronic appliance, said touchpad keyboard comprising:

a touchpad including circuitry for detecting and localizing a pointing object on a surface thereof;

a housing that surrounds all of the circuitry of the touchpad, while leaving a surface thereof exposed;

an overlay disposed on the surface of the touchpad keyboard that defines a plurality of keys, wherein the overlay provides visual feedback that corresponds to signals that will be generated therefrom when the plurality of keys of the touchpad keyboard are touched;

a communications port for direct coupling to the hand-held portable electronic appliance that enables transmission thereto of signals corresponding to the plurality of keys touched on the touchpad keyboard; and

an audio feedback system that causes a pre-recorded sound to be made audible whenever any key of the plurality of keys is touched on the touchpad keyboard.

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9. The touchpad keyboard as defined in claim 8 wherein the pre-recorded sound of the audio feedback system includes a pre-recorded voice that states a name of an associated key of the plurality of keys that has been touched.

10. The touchpad keyboard as defined in claim 8 wherein the touchpad further comprises a mechanical scrolling wheel disposed in a side thereof, such that a user can rotate the mechanical wheel to thereby cause data on a display screen to scroll up or down.

11. The touchpad keyboard as defined in claim 8 wherein the touchpad further comprises a touchpad scrolling zone disposed in the housing, such that a user slides a pointing object along the touchpad scrolling zone to thereby cause data on a display screen to scroll up or down, corresponding to a direction of movement of the pointing object.

12. The touchpad keyboard as defined in claim 8 wherein the touchpad further comprises a communications cable that

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is coupled to the communications port to thereby enable remote coupling to a portable electronic appliance.

13. The touchpad as defined in claim 12 wherein the hand-held and portable electronic appliance is selected from the group of hand-held and portable electronic appliances comprised of personal digital assistants (PDAs), portable computers, and mobile telephones.

14. The touchpad keyboard as defined in claim 8 wherein the communications port is selected from the group of communications ports comprised of wire, wireless, infrared, radio frequency, ultrasonic, and optical technology.

15. The touchpad keyboard as defined in claim 8 wherein the overlay further comprises tactile feedback to a user.

16. The touchpad keyboard as defined in claim 15 wherein the overlay further comprises a plurality of raised ridges, wherein the plurality of raised ridges define a plurality of zones, wherein the plurality of zones

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corresponds to the plurality of keys of the touchpad keyboard.

17. The touchpad keyboard as defined in claim 16 wherein the touchpad is selected from the group of touchpads comprised of capacitance-sensitive, electromagnetic, electrostatic, ultrasonic, optical, resistive membrane, or other finger or stylus-responsive devices.

18. The touchpad keyboard as defined in claim 17 wherein the plurality of keys include at least a first dedicated key that facilitates navigation in web pages.

19. The touchpad keyboard as defined in claim 18 wherein the plurality of keys include at least a second dedicated key that is programmable to actuate a computer program.

20. The touchpad keyboard as defined in claim 19 wherein the touchpad keyboard includes a mode switch that enables the touchpad keyboard to switch between functioning as a touchpad keyboard and as a cursor control device.

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21. The touchpad keyboard as defined in claim 8 wherein the touchpad keyboard further comprises a second touchpad that is dedicated to functions selected from the group of functions comprised of cursor control, web page navigation, selection and deselection of objects on a display, scrolling on a display, and zooming on a display.

22. A method for inputting alphanumeric data into a handheld and portable electronic appliance, said method comprising the steps of:

(1) providing a touchpad including circuitry for detecting and localizing a pointing object on a surface thereof, a housing that surrounds all of the circuitry of the touchpad, while leaving a surface thereof exposed, an overlay disposed on the surface of the touchpad that defines a plurality of keys, wherein the overlay provides visual feedback that corresponds to signals that will be generated therefrom when the plurality of keys of the touchpad are touched, a communications port for directly transmitting signals corresponding to the plurality of keys touched on the touchpad, and an audio feedback system;

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(2) touching keys of the plurality of keys to thereby input data to the hand-held and portable electronic appliance; and

(3) causing a pre-recorded sound to be made audible whenever any key of the plurality of keys is touched on the touchpad keyboard, to thereby enable a user to know that a key has been touched.

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23. The method as defined in claim 22 wherein the method further comprises the step of making the pre-recorded sound a voice that states a name of a particular key of the plurality of keys that corresponds to a key being touched.

24. The method as defined in claim 23 wherein the method further comprises the step of providing a mechanical scrolling wheel, such that a user can rotate the mechanical wheel to thereby cause data on a display screen to scroll up or down.

25. The method as defined in claim 23 wherein the method further comprises the step of providing a touchpad

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scrolling zone disposed in the housing, such that a user slides a pointing object along the touchpad/scrolling zone to thereby cause data on a display screen to scroll up or down.

26. The method as defined in claim 23 wherein the method further comprises the step of providing a communications cable that is coupled to the communications port to thereby enable remote coupling to a portable electronic appliance.

27. The method as defined in claim 23 wherein the method further comprises the step of selecting the hand-held and portable electronic appliance from the group of hand-held and portable electronic appliances comprised of personal digital assistants (PDAs), portable computers, and mobile telephones.

28. The method as defined in claim 23 wherein the method further comprises the step of selecting the communications port from the group of communications ports comprised of wire, wireless, infrared, radio frequency, ultrasonic, and

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optical technology.

29. The method as defined in claim 23 wherein the method further comprises the step of providing tactile feedback on the overlay to thereby increase ease of use of the touchpad by enabling the user to know if the pointing device is centered on one of the plurality of keys.

30. The method as defined in claim 23 wherein the method further comprises the steps of:

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- 1) providing a plurality of raised ridges on a surface of the touchpad keyboard; and
 - 2) enabling the plurality of raised ridges to highlight each of the plurality of keys of the touchpad.

31. The method as defined in claim 30 wherein the method further comprises the step of selecting the touchpad from the group of touchpads comprised of capacitance-sensitive, electromagnetic, electrostatic, ultrasonic, optical, resistive membrane, or other finger or stylus-responsive devices.

32. The method as defined in claim 23 wherein the method further comprises the step of providing at least a first dedicated key that facilitates navigation in web pages.

33. The method as defined in claim 23 wherein the method further comprises the step of providing at least a second dedicated key that is programmable to thereby actuate a computer program.

34. The method as defined in claim 23 wherein the method further comprises the step of including a mode switch that enables the touchpad keyboard to switch between functioning as a touchpad keyboard and as a cursor control device.

35. The method as defined in claim 23 wherein the method further comprises the step of providing a second touchpad that is dedicated to functions selected from the group of functions comprised of cursor control, web page navigation, selection and deselection of objects on a display, scrolling on a display, and zooming on a display.

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36. A hand-held data input device for navigating web pages that are displayed on a web browser terminal, and for entering alphanumerical data therein, said data input device comprising:

a hand-held housing;

a touch-sensitive surface that is disposed within the hand-held housing and which functions as a keyboard having discrete locations which define keys thereon;

a touch-sensitive surface which is disposed within the hand-held housing and which functions as a touchpad device for cursor control and navigation of the web pages;

a means for providing audible feedback to a user, to thereby provide precise information as to which key on the keyboard was touched by the user; and

a communications link between the keyboard, the touchpad and the web browser terminal which at least transmits and receives data therebetween.

37. A hand-held data input device for navigating web pages that are displayed on a web browser terminal that is coupled to a network, and for entering alphanumerical data therein, said data input device comprising:

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a hand-held housing;

a touch-sensitive surface which is disposed within the hand-held housing and which functions as a keyboard having discrete locations which define keys thereon;

a touch-sensitive surface which is disposed within the hand-held housing and which functions as a touchpad device for cursor control and navigation of the web pages;

a microphone for recording audio data for transmission via the network, and for live transmission of audio data for transmission via the network; and

a communications link between the keyboard, the touchpad and the web browser terminal which at least transmits and receives data therebetween.

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Concluded

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